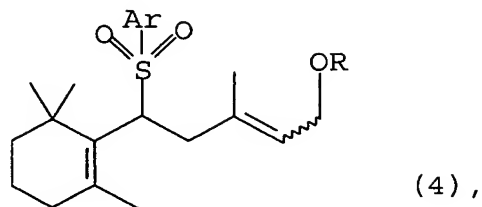


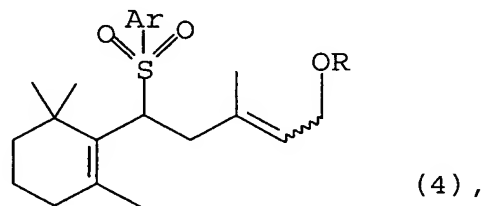
What is claimed is:

1. A sulfone compound of formula (4):



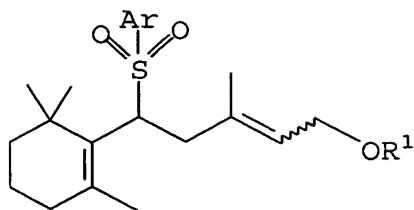
wherein Ar denotes a substituted or unsubstituted aryl group, R denotes a hydrogen atom or a protective group of a hydroxyl group, and the wavy line means that the sulfone compound is an E or Z geometrical isomer or a mixture thereof.

2. A sulfone compound of formula (4):



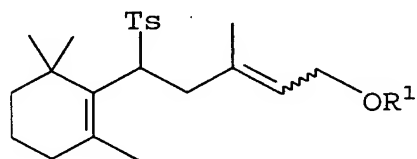
wherein Ar denotes a substituted or unsubstituted aryl group, R denotes a protective group of a hydroxyl group, and the wavy line means that the sulfone compound is an E or Z geometrical isomer or a mixture thereof.

3. A sulfone compound of formula:



wherein Ar denotes a substituted or unsubstituted aryl group, and R¹ denotes a hydrogen atom.

4. A sulfone compound of formula:



wherein Ts denotes a p-toluenesulfonyl group and R¹ denotes a hydrogen atom.